

VIA CERTIFIED MAIL

Mr. Richard Wise
Walsh & Kelly, Inc.
24358 State Road 23
South Bend, Indiana 46614

Re: Initial Site Approval (INDOT No. 3219)
F 141-9888, Plt ID 141-03219

Dear Mr. Wise:

This letter grants approval to construct the portable drum mix asphalt plant, INDOT No. 3219, described in FESOP No. 141-03219, to be initially located at 24358 State Road 23, South Bend, Indiana, in St. Joseph County.

A two-week advance notice of start-up is required in order for IDEM to perform an inspection. If the plant is not operating in compliance with all applicable regulations upon inspection, the plant must cease operation upon notification to you by IDEM staff of such non-compliance. Operations may only resume once remedial actions have been taken.

If you have any questions concerning this permit, please contact Kelly Metts, at the above address or via phone at 317/233-0182.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

TE/EVP

cc: File - St. Joseph County
St. Joseph County Health Department
Air Compliance Inspector Paul Karkiewicz
Permit Tracking - Janet Mobley
Compliance Targeting - Wanda Stanfield
Data Support - Nancy Landau
Data Support - Donna Dickison

**FEDERALLY ENFORCEABLE STATE
OPERATING PERMIT (FESOP)
OFFICE OF AIR MANAGEMENT
and ST. JOSEPH COUNTY HEALTH DEPARTMENT**

Walsh & Kelly, Inc.

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 and 326 IAC 2-1-3.2, as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

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Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) and the St. Joseph County Health Department. The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a portable drum mix asphalt plant.

Responsible Official: Roger Knip, Vice President
Initial Source Address: 24358 State Road 23, South Bend, Indiana 46614
Mailing Address: 24358 State Road 23, South Bend, Indiana 46614
SIC Code: 2951
Initial County Location: St. Joseph
County Status: Attainment for all criteria pollutants
Source Status: Federally Enforceable State Operating Permit (FESOP)
Minor Source, under PSD and Emission Offset Rules;

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This portable source consists of the following emission units and pollution control devices:

- (1) one (1) hot asphalt drum mixer capable of processing 400 tons per hour of raw material, equipped with one (1) 115 million British thermal units (MMBtu) per hour natural gas fired burner using #5 residual fuel oil and #2 distillate fuel oil as backup fuels;
- (2) one (1) rotary air/reverse air baghouse for controlling particulate matter (PM) emissions from the hot asphalt drum mixer, exhausting at one (1) stack (ID No. S-1);
- (3) four (4) 20,000 gallon liquid asphalt storage tanks; and
- (4) production of stockpile mix.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This portable source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (1) Natural gas-fired combustion sources with heat input equal to or less than ten million Btu per hour including:
 - (a) one (1) natural gas fired hot oil heater, identified as C-2, with a maximum rated capacity of 2.256 million British thermal units per hour, using #2 distillate fuel as backup fuel; and
 - (b) one (1) natural gas fired inert gas generator identified as C-3 rated at 0.0228 million British thermal units.
- (2) Combustion source flame safety purging on startup.
- (3) Replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment.
- (4) Paved and unpaved roads and parking lots with public access.
- (5) One (1) hot mix slat conveyor.
- (6) Four (4) aggregate conveyors.
- (7) One (1) 4' x 14' double deck aggregate screen.
- (8) Two (2) recycled asphalt conveyors.
- (9) One (1) 4' x 8' recycled asphalt screen.
- (10) Eight (8) aggregate feeder bins, each with a capacity of 32 tons.
- (11) One (1) recycled asphalt feeder bin, with a capacity of 32 tons.

- (12) Four (4) surge silos, each with a capacity of 300 tons.
- (13) One (1) dust silo, using one (1) jetpulse baghouse for controlling particulate matter emissions, exhausting at one (1) stack identified as S-2.

A.4 FESOP Applicability [326 IAC 2-8-2]

This portable source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permit Conditions

- (a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.
- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAM, and the St. Joseph County Health Department shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [326 IAC 2-1-10] [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-7 shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3.

B.4 Enforceability [326 IAC 2-8-6]

- (a) All terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM and the St. Joseph County Health Department.
- (b) Unless otherwise stated, terms and conditions of this permit, including any provisions to limit the source's potential to emit, are enforceable by the United States Environmental Protection Agency (U.S. EPA) and citizens under the Clean Air Act.
- (c) All terms and conditions in this permit that are local requirements, including any provisions designed to limit the source's potential to emit, are enforceable by the St. Joseph County Health Department.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]

- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

St. Joseph County Health Department
County-City Building, Room 914
South Bend, Indiana 46601-1870

- (b) The Permittee shall furnish to IDEM, OAM, and the St. Joseph County Health Department within a reasonable time, any information that IDEM, OAM, and the St. Joseph County Health Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.
- (c) Upon request, the Permittee shall also furnish to IDEM, OAM, and the St. Joseph County Health Department copies of records required to be kept by this permit. If the Permittee wishes to assert a claim of confidentiality over any of the furnished records, the Permittee must furnish such records to IDEM, OAM, and the St. Joseph County Health Department along with a claim of confidentiality under 326 IAC 17. If requested by IDEM, OAM, or the U.S. EPA, to furnish copies of requested records directly to U. S. EPA, and if the Permittee is making a claim of confidentiality regarding the furnished records, the Permittee must furnish such confidential records directly to the U.S. EPA along with a claim of confidentiality under 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAM and the St. Joseph County Health Department may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit constitutes a violation of the Clean Air Act and is grounds for:
- (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; and
 - (3) Denial of a permit renewal application.

- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Any application form, report, or compliance certification submitted under this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, and any other certification required under this permit, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, on the attached Certification Form, with each submittal.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The certification shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

St. Joseph County Health Department
County-City Building, Room 914
South Bend, Indiana 46601-1870

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, and the St. Joseph County Health Department on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was based on continuous or intermittent data;
 - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts as specified in Sections D of this permit, IDEM, OAM, and the St. Joseph County Health Department may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, including the following information on each facility:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

St. Joseph County Health Department
County-City Building, Room 914
South Bend, Indiana 46601-1870

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAM, and the St. Joseph County Health Department upon request and shall be subject to review and approval by IDEM, OAM, and the St. Joseph County Health Department.

B.14 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;

- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAM and the St. Joseph County Health Department, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Management, Compliance Section) or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

and

Telephone No.: 219-235-9775 (St. Joseph County Health Department)
Facsimile No.: 219-235-7558

Failure to notify IDEM, OAM and the St. Joseph County Health Department, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted notice either in writing or facsimile, of the emergency to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

St. Joseph County Health Department
County-City Building, Room 914
South Bend, Indiana 46601-1870

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.

- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAM and the St. Joseph County Health Department, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAM and the St. Joseph County Health Department, by telephone or facsimile of an emergency lasting more than one (1) hour in compliance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

St. Joseph County Health Department
County-City Building, Room 914
South Bend, Indiana 46601-1870

within ten (10) calendar days from the date of the discovery of the deviation.

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
 - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
 - (2) An emergency as defined in 326 IAC 2-7-1(12); or
 - (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.
 - (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination
[326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)]
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAM and the St. Joseph County Health Department determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAM and the St. Joseph County Health Department, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAM and the St. Joseph County Health Department, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAM and the St. Joseph County Health Department, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAM and the St. Joseph County Health Department and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

and

St. Joseph County Health Department
County-City Building, Room 914
South Bend, Indiana 46601-1870

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

- (1) A timely renewal application is one that is:

- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, and the St. Joseph County Health Department on or before the date it is due. [326 IAC 2-5-3]

- (2) If IDEM, OAM and the St. Joseph County Health Department upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAM and the St. Joseph County Health Department takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAM and the St. Joseph County Health Department, any additional information identified as needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-8-10] [326 IAC 2-8-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

St. Joseph County Health Department
County-City Building, Room 914
South Bend, Indiana 46601-1870

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule.

- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request.
[326 IAC 2-8-10(b)(3)]

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-8-11(b)(2)]

Notwithstanding 326 IAC 2-8-11(b)(1)(D)(i) and 326 IAC 2-8-11(c)(1), minor permit modification procedures may be used for modifications of this permit involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches to the extent that such minor permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated by U.S. EPA.

B.20 Changes Under Section 502(b)(10) of the Clean Air Act [326 IAC 2-8-15(b)]

The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional condition:

For each such change, the required written notification shall include a brief description of the change within the source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.

B.21 Operational Flexibility [326 IAC 2-8-15]

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

St. Joseph County Health Department
County-City Building, Room 914
South Bend, Indiana 46601-1870

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAM and the St. Joseph County Health Department, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

- (b) For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAM or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.22 Construction Permit Requirement [326 IAC 2]

Except as allowed by Indiana P.L. 130-1996 Section 12, as amended by P.L. 244-1997, modification, construction, or reconstruction shall be approved as required by and in accordance with 326 IAC 2.

B.23 Inspection and Entry [326 IAC 2-8-5(a)(2)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, the Permittee shall allow IDEM, OAM, the St. Joseph County Health Department, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.
[326 IAC 2-8-5(a)(4)]
 - (1) The Permittee may assert a claim that, in the opinion of the Permittee, information removed or about to be removed from the source by IDEM, OAM, and the St. Joseph County Health Department or an authorized representative, contains information that is confidential under IC 5-14-3-4(a). The claim shall be made in writing before or at the time the information is removed from the source. In the event that a claim of confidentiality is so asserted, neither IDEM, OAM, and the St. Joseph County Health Department nor an authorized representative, may disclose the information unless and until IDEM, OAM, and the St. Joseph County Health Department makes a determination under 326 IAC 17-1-7 through 326 IAC 17-1-9 that the information is not entitled to confidential treatment and that determination becomes final. [IC 5-14-3-4; IC 13-14-11-3; 326 IAC 17-1-7 through 326 IAC 17-1-9]
 - (2) The Permittee, IDEM, OAM, and the St. Joseph County Health Department acknowledge that the federal law applies to claims of confidentiality made by the Permittee with regard to information removed or about to be removed from the source by U.S. EPA. [40 CFR Part 2, Subpart B]

B.24 Transfer of Ownership or Operation [326 IAC 2-1-6][326 IAC 2-8-10]

Pursuant to 326 IAC 2-1-6 and 2-8-10:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAM, Permits Branch and the St. Joseph County Health Department, within thirty (30) days of the change. Notification shall include a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current Permittee and the new owner.

- (b) The written notification shall be sufficient to transfer the permit to the new owner by an administrative amendment pursuant to 326 IAC 2-8-10. The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) IDEM, OAM and the St. Joseph County Health Department shall reserve the right to issue a new permit.

B.25 Annual Fee Payment [326 IAC 2-8-4(6)][326 IAC 2-8-16]

- (a) The Permittee shall pay annual fees to IDEM, OAM, within thirty (30) calendar days of receipt of a billing. If the Permittee does not receive a bill from IDEM, OAM the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAM, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

- (a) Pursuant to 326 IAC 2-8:
 - (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also satisfy the requirements of 326 IAC 2-3 (Emission Offset);
 - (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
 - (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), emissions of particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per three hundred sixty-five (365) consecutive day period.
- (c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.
- (d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period, as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9, or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor), in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted on June 26, 1998. The plan consists of:

- (a) Aggregate storage piles will be water when dust can be observed blowing from the piles. Water will be applied at a rate of 275 gallons of water per acre of storage piles or greater if needed to suppress dust.
- (b) The plant roadways will be watered when dust can be observed coming up from the road upon vehicular passage. Water will be applied at a rate of 3 gallons of water per mile of roadway, or greater if needed to suppress dust.

C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]

All air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

St. Joseph County Health Department
County-City Building, Room 914
South Bend, Indiana 46601-1870

The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are mandatory for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.9 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing methods approved by the IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

St. Joseph County Health Department
County-City Building, Room 914
South Bend, Indiana 46601-1870

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.10 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend compliance schedule an additional ninety (90) days provided the Permittee notify:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

St. Joseph County Health Department
County-City Building, Room 914
South Bend, Indiana 46601-1870

in writing, prior to the end of the initial ninety (90) day compliance schedule with full justification of the reasons for inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.11 Maintenance of Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)]

- (a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.

To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.

- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.12 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed to meet the applicable requirements of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.13 Pressure Gauge Specifications

Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

St. Joseph County Health Department
County-City Building, Room 914
South Bend, Indiana 46601-1870

within ninety (90) days from the date of issuance of this permit.

The ERP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) If the ERP is disapproved by IDEM, OAM and the St. Joseph County Health Department, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAM and the St. Joseph County Health Department, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present in a process in more than the threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall:

- (a) Submit:
 - (1) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or
 - (2) As a part of the compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and
 - (3) A verification to IDEM, OAM, and the St. Joseph County Health Department that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.
- (b) Provide annual certification to IDEM, OAM, and the St. Joseph County Health Department that the Risk Management Plan is being properly implemented.

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

C.16 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-8-4][326 IAC 2-8-5] [326 IAC 1-6]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
 - (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this permit;
 - (3) The Compliance Monitoring Requirements in Section D of this permit;
 - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
 - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM and the St. Joseph County Health Department upon request and shall be subject to review and approval by IDEM, OAM, and the St. Joseph County Health Department. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of :

- (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.
- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;
 - (3) An automatic measurement was taken when the process was not operating; or
 - (4) The process has already returned to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4]
[326 IAC 2-8-5]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline.

Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.18 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]

- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that meets the requirements of 326 IAC 2-6 (Emission Reporting). This annual statement must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year). The annual statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

St. Joseph County Health Department
County-City Building, Room 914
South Bend, Indiana 46601-1870

- (b) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, and the St. Joseph County Health Department on or before the date it is due.

C.19 Monitoring Data Availability

- (a) With the exception of performance tests conducted in accordance with Section C-Performance Testing all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM and the St. Joseph County Health Department may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements in (a) above.

C.20 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, and the St. Joseph County Health Department representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or the St. Joseph County Health Department makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or the St. Joseph County Health Department within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this permit;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.21 General Reporting Requirements [326 IAC 2-8-4(3)(C)]

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported.
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

St. Joseph County Health Department
County-City Building, Room 914
South Bend, Indiana 46601-1870
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, and the St. Joseph County Health Department on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period.
- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports.
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Portable Source Requirement

C.22 Relocation of Portable Sources [326 IAC 2-1-6(b)]

- (a) This permit is approved for operation in all areas of Indiana except in severe nonattainment areas for ozone (at the time of this permit's issuance these areas were Lake and Porter Counties). This determination is based on the requirements of Prevention of Significant Deterioration in 326 IAC 2-2 and 40 CFR 52.21, and Emission Offset requirements in 326 IAC 2-3. A thirty (30) day advance notice of relocation must be given to IDEM, OAM and a "Relocation Site Approval" letter must be obtained before relocating.

- (b) The Permittee shall also notify the applicable local air pollution control agency when relocating to or from one of the following:
 - (1) Madison County - (Anderson Office of Air Management)
 - (2) City of Evansville plus four (4) miles beyond the corporate limits but not outside Vanderburgh County - (Evansville EPA)
 - (3) City of Gary - (Gary Division of Air Pollution)
 - (4) City of Hammond - (Hammond Department of Environmental Management)
 - (5) Marion County - (Indianapolis Air Pollution Control Agency)
 - (6) St. Joseph County - (St. Joseph County Health Department)
 - (7) Vigo County - (Vigo County Air Pollution Department)
- (c) That a valid operation permit consists of this document and any subsequent "Relocation Site Approval" letter specifying the current location of the portable plant.

Stratospheric Ozone Protection

C.23 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]

- (1) one (1) hot asphalt drum mixer capable of processing 400 tons per hour of raw material, equipped with one (1) 115 million British thermal units (MMBtu) per hour natural gas fired burner using #5 residual fuel oil and #2 distillate fuel oil as backup fuels; and
- (2) one (1) rotary air/reverse air baghouse for controlling particulate matter (PM) emissions from the hot asphalt drum mixer, exhausting at one (1) stack (ID No. S-1).

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6-1-2] [326 IAC 12] [40 CFR 60.90, Subpart I]

- (a) Pursuant to 326 IAC 6-1-2 (Particulate Emissions Limitations), the particulate matter emissions from the mixing and drying operation shall be limited to 0.03 grains per dry standard cubic foot (gr/dscf). This is equivalent to a particulate matter emission rate of 12.15 pounds per hour. This limit will also render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 326 IAC 2-3 (Emission Offset) not applicable.

- (b) Pursuant to 326 IAC 12, (40 CFR Part 60.90, Subpart I) "Standards of Performance for Hot Mix Asphalt Facilities", the particulate matter emissions from the mixing and drying operations shall be limited to 0.04 grains per dry standard cubic foot (gr/dscf). This is equivalent to a particulate matter emission rate of 16.2 pounds per hour.

Compliance with the PM emission limit pursuant to 326 IAC 6-1-2 will also satisfy the PM emission limit pursuant to 326 IAC 12, 40 CFR Part 60.90, Subpart I.

D.1.2 Opacity [326 IAC 12] [40 CFR 60.90, Subpart I]

Pursuant to 326 IAC 12, (40 CFR Part 60.92, Subpart I) "Standards of Performance for Hot Mix Asphalt Facilities", the mixing and drying operations shall not discharge or cause the discharge into the atmosphere any gases which exhibit 20% opacity or greater.

D.1.3 Particulate Matter 10 Microns (PM-10) [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4, particulate matter 10 microns emissions from the aggregate mixing and drying operation shall not exceed 9.5 pounds per hour, including both filterable and condensable fractions. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7) do not apply.

D.1.4 Sulfur Dioxide (SO₂) [326 IAC 7-1.1]

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 115.0 million Btu per hour burner for the aggregate dryer shall be limited to:

- (a) 1.6 pounds per MMBtu heat input or a sulfur content of less than or equal to 1.5% when using residual oil; and
- (b) 0.5 pounds per million Btu heat input or a sulfur content of less than or equal to 0.5% when using distillate oil.

D.1.5 Fuel Usage [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4(1), the following limits shall apply:

- (a) the input of No. 5 residual fuel oil with a maximum sulfur content of 1.5% and No. 5 residual fuel oil equivalents to the 115.0 MMBtu per hour burner for the aggregate dryer shall be limited to 797,877 U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis, so that SO₂ emissions are limited below 100 tons per year.
- (b) the input of natural gas and natural gas equivalents to the 115.0 MMBtu per hour burner for the aggregate dryer shall be limited to 748.53 million cubic feet (MMCF) per twelve (12) consecutive month period, rolled on a monthly basis, so that NO_x emissions are limited below 100 tons per year.
- (c) For purposes of determining compliance, the following shall apply:
 - (1) every MMCF of natural gas burned shall be equivalent to 2.5 gallons of No. 5 residual fuel oil based on SO₂ emissions, such that the total gallons of No. 5 residual fuel oil and No. 5 residual fuel oil equivalent input does not exceed the limit specified;
 - (2) every 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to 301.5 gallons of No. 5 residual fuel oil based on SO₂ emissions and a maximum sulfur content of 0.5 percent such that the total gallons of No. 5 residual fuel oil and No. 5 residual fuel oil equivalent input does not exceed the limit specified;
 - (3) every 1,000 gallons of No. 5 residual fuel oil burned shall be equivalent to 0.29 MMCF of natural gas based on NO_x emissions, such that the total MMCF of natural gas and natural gas equivalent input does not exceed the limit specified;

- (4) every 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to 0.11 MMCF of natural gas based on NOx emissions, such that the total MMCF of natural gas and natural gas equivalent input does not exceed the limit specified;

Therefore, the requirements of 326 IAC 2-7 will not apply.

D.1.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.1.7 Testing Requirements [326 IAC 2-8-5(a)(1), (4)]

During the period between 48 and 54 months after issuance of this permit, the Permittee shall perform PM and PM-10 testing utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensable PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

D.1.8 Sulfur Dioxide Emissions and Sulfur Content

Compliance shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the No. 5 residual fuel oil sulfur content does not exceed 1.5% by weight and the No. 2 distillate fuel oil sulfur content does not exceed 0.5% by weight by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a certification;
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; or
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the 115.0 MMBtu per hour burner for the aggregate dryer, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to either of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

D.1.9 Particulate Matter (PM)

The baghouse for PM control shall be in operation at all times when the hot asphalt drum mixer is in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.10 Visible Emissions Notations

- (a) Daily visible emission notations of the hot asphalt drum mixer baghouse stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.1.11 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the hot asphalt drum mixer, at least once daily when the hot asphalt drum mixer is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 0.5 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and the St. Joseph County Health Department, and shall be calibrated at least once every six (6) months.

D.1.12 Broken or Failed Bag Detection

In the event that bag failure has been observed.

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.13 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.4 and D.1.5, the Permittee shall maintain records in accordance with (1) through (7) below.
 - (1) Calendar dates covered in the compliance determination period;

- (2) Actual No. 5 residual fuel oil and No. 5 residual fuel oil equivalent usage per month since last compliance determination period and equivalent sulfur dioxide (SO₂) emissions;
- (3) Actual natural gas and natural gas equivalent usage per month since last compliance determination period and equivalent NOx emissions;
- (4) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (5) Fuel supplier certifications.
- (6) The name of the fuel supplier; and
- (7) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (b) To document compliance with Condition D.1.10, the Permittee shall maintain records of daily visible emission notations of the hot asphalt drum mixer baghouse stack exhaust.
- (c) To document compliance with Condition D.1.11, the Permittee shall maintain the following:
 - (1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:
 - (A) Inlet and outlet differential static pressure; and
 - (B) Cleaning cycle: frequency and differential pressure.
 - (2) Documentation of all response steps implemented, per event .
 - (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
 - (4) Quality Assurance/Quality Control (QA/QC) procedures.
 - (5) Operator standard operating procedures (SOP).
 - (6) Manufacturer's specifications or its equivalent.
 - (7) Equipment "troubleshooting" contingency plan.
 - (8) Documentation of the dates vents are redirected.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.14 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.5 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]

(3) four (4) 20,000 gallon liquid asphalt storage tanks.

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Volatile Organic Compounds (VOCs) [326 IAC 12] [40 CFR 60.110b, Subpart Kb]

Pursuant to 40 CFR Part 60.110b, Subpart Kb (Standards of Performance for Volatile Organic Liquid Storage Vessels), the four (4) 20,000 gallon liquid asphalt storage tanks, each with a vapor pressure of less than 15.0 kPa, are subject to 40 CFR Part 60.116b, paragraphs (a), (b), and (c) which require record keeping.

D.2.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control device.

Compliance Determination Requirements

D.2.3 Testing Requirements [326 IAC 2-8-5(a)(1), (4)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the VOC limit specified in Condition D.2.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.4 Record Keeping Requirements

- (a) To document compliance with Condition D.2.1, the Permittee shall maintain permanent records at the source in accordance with (1) through (3) below:
- (1) the dimension of each storage vessel;
 - (2) an analysis showing the capacity of each storage vessel; and
 - (3) the true vapor pressure of each VOC stored, indicating that the maximum true vapor pressure of VOC is less than 15.0 kPa for each tank.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]

(4) production of stockpile mix.

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 Volatile Organic Compounds (VOCs) [326 IAC 8-5-2]

Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving), the use of cutback asphalt or asphalt emulsion shall not contain more than seven percent (7%) oil distillate by volume of emulsion for any paving application except the following purposes:

- 1) penetrating prime coating
- 2) stockpile storage
- 3) application during the months of November, December, January, February and March.

D.3.2 Cold-Mix (Stockpile Mix) VOC Usage [326 IAC 2-8-4]

The VOC usage in the production of cold mix (stockpile mix) asphalt shall be limited to 85.82 tons per twelve (12) consecutive month period, rolled on a monthly basis. The total for each month shall not exceed the difference between the annual usage limit minus the sum of actual usage from the previous eleven (11) months. This is equivalent to 343.28 tons of diluent used per 365 day period in the production of cold mix (stockpile mix) asphalt based on 25% volatilization. During the first twelve (12) months of operation under this permit, the usage of diluent shall be limited such that the total usage divided by the accumulated months of operation shall not exceed 7.15 tons per month. Therefore, the requirements of 326 IAC 2-7 will not apply.

Compliance Determination Requirements

D.3.3 Testing Requirements [326 IAC 2-8-5(a)(1), (4)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the VOC limit specified in Condition D.3.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.3.4 Record Keeping Requirements

- (a) To document compliance with Condition D.3.2, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.3.2.
 - (1) diluent used in production of cold mix asphalt per month;
 - (2) amount of diluent used last twelve (12) months;
 - (3) type of liquid binder used; and
 - (4) percent diluent (oil distillate) in liquid binder.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.5 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.3.2 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]

- (13) One (1) dust silo, using one (1) jetpulse baghouse for controlling particulate matter emissions, exhausting at one (1) stack identified as S-2.

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.4.1 Particulate Matter (PM) [326 IAC 6-1-2] [326 IAC 12] [40 CFR 60.90, Subpart I]

- (a) Pursuant to 326 IAC 6-1-2 (Particulate Emissions Limitations), the particulate matter emissions from the dust silo shall be limited to 0.03 grains per dry standard cubic foot (gr/dscf). This is equivalent to a particulate matter emission rate of 0.16 pounds per hour.
- (b) Pursuant to 326 IAC 12, (40 CFR Part 60.90, Subpart I) "Standards of Performance for Hot Mix Asphalt Facilities", the particulate matter emissions from the dust silo shall be limited to 0.04 grains per dry standard cubic foot (gr/dscf). This is equivalent to a particulate matter emission rate of 0.21 pounds per hour.

Compliance with the PM emission limit pursuant to 326 IAC 6-1-2 will also satisfy the PM emission limit pursuant to 326 IAC 12, 40 CFR Part 60.90, Subpart I.

D.4.2 Opacity [326 IAC 12] [40 CFR 60.90, Subpart I]

Pursuant to 326 IAC 12, (40 CFR Part 60.92, Subpart I) "Standards of Performance for Hot Mix Asphalt Facilities", the dust silo shall not discharge or cause the discharge into the atmosphere any gases which exhibit 20% opacity or greater.

Compliance Determination Requirements

D.4.3 Testing Requirements [326 IAC 2-8-5(a)(1), (4)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limits specified in Condition D.4.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and
ST. JOSEPH COUNTY HEALTH DEPARTMENT

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION**

Source Name: Walsh & Kelly, Inc.
Initial Source Address: 24358 State Road 23, South Bend, Indiana 46614
Mailing Address: 24358 State Road 23, South Bend, Indiana 46614
FESOP No.: F141-9888-03219

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- ☐ Annual Compliance Certification Letter
- ☐ Test Result (specify) _____
- ☐ Report (specify) _____
- ☐ Notification (specify) _____
- ☐ Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

and

ST. JOSEPH COUNTY HEALTH DEPARTMENT

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY/DEVIATION OCCURRENCE REPORT**

Source Name: Walsh & Kelly, Inc.
Initial Source Address: 24358 State Road 23, South Bend, Indiana 46614
Mailing Address: 24358 State Road 23, South Bend, Indiana 46614
FESOP No.: F141-9888-03219

This form consists of 2 pages

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Check either No. 1 or No.2

- ☐ 1. This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Management (OAM), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
 - The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16
- ☐ 2. This is a deviation, reportable per 326 IAC 2-7-5(3)(c)
- The Permittee must submit notice in writing within ten (10) calendar days

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency/Deviation:

Describe the cause of the Emergency/Deviation:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency/Deviation started:
Date/Time Emergency/Deviation was corrected:
Was the facility being properly operated at the time of the emergency/deviation? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency/deviation:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

and

ST. JOSEPH COUNTY HEALTH DEPARTMENT

FESOP Quarterly Report

Source Name: Walsh & Kelly, Inc.
Initial Source Address: 24358 State Road 23, South Bend, Indiana 46614
Mailing Address: 24358 State Road 23, South Bend, Indiana 46614
FESOP No.: F141-9888-03219
Facility: 115 million British thermal units (MMBtu) per hour burner for the aggregate dryer
Parameter: Sulfur Dioxide (SO₂)
Limit: the input of No. 5 residual fuel oil with a maximum sulfur content of 1.5% and No. 5 residual fuel oil equivalents to the 115.0 MMBtu per hour burner for the aggregate dryer shall be limited to 797,877 U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis. For purposes of determining compliance, every MMCF of natural gas burned shall be equivalent to 2.5 gallons of No. 5 residual fuel oil based on SO₂ emissions, and every 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to 301.5 gallons of No. 5 residual fuel oil based on SO₂ emissions and a maximum sulfur content of 0.5 percent.

YEAR: _____

Month	Fuel Type	Column 1	Column 2	Column 1 + Column 2
		No. 5 Residual Fuel Oil and Equivalent Usage This Month	No. 5 Residual Fuel Oil and Equivalent Usage Previous 11 Months	12 Month Total No. 5 Residual Fuel Oil and Equivalent Usage
Month				
Month				
Month				

- ☐ No deviation occurred in this quarter.
- ☐ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

and

ST. JOSEPH COUNTY HEALTH DEPARTMENT

FESOP Quarterly Report

Source Name: Walsh & Kelly, Inc.
Initial Source Address: 24358 State Road 23, South Bend, Indiana 46614
Mailing Address: 24358 State Road 23, South Bend, Indiana 46614
FESOP No.: F141-9888-03219
Facility: 115 million British thermal units (MMBtu) per hour burner for the aggregate dryer
Parameter: Oxides of Nitrogen (NOx)
Limit: the input of natural gas and natural gas equivalents to the 115.0 MMBtu per hour burner for the aggregate dryer shall be limited to 748.53 million cubic feet (MMCF) per twelve (12) consecutive month period, rolled on a monthly basis. For purposes of determining compliance, every 1,000 gallons of No. 5 residual fuel oil burned shall be equivalent to 0.29 MMCF of natural gas based on NOx emissions, and every 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to 0.11 MMCF of natural gas based on NOx emissions.

YEAR: _____

Month	Fuel Type	Column 1	Column 2	Column 1 + Column 2
		Natural Gas and Equivalent Usage This Month	Natural Gas and Equivalent Usage Previous 11 Months	12 Month Total Natural Gas and Equivalent Usage
Month				
Month				
Month				

- ☐ No deviation occurred in this quarter.
- ☐ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and**

ST. JOSEPH COUNTY HEALTH DEPARTMENT

FESOP Quarterly Report

Source Name: Walsh & Kelly, Inc.
Initial Source Address: 24358 State Road 23, South Bend, Indiana 46614
Mailing Address: 24358 State Road 23, South Bend, Indiana 46614
FESOP No.: F141-9888-03219
Facility: production of stockpile mix.
Parameter: Volatile Organic Compounds (VOC)
Limit: The VOC usage in the production of cold mix (stockpile mix) asphalt shall be limited to 85.82 tons per twelve (12) consecutive month period, rolled on a monthly basis. The total for each month shall not exceed the difference between the annual usage limit minus the sum of actual usage from the previous eleven (11) months. This is equivalent to 343.28 tons of diluent used per 365 day period in the production of cold mix (stockpile mix) asphalt based on 25% volatilization. During the first twelve (12) months of operation under this permit, the usage of diluent shall be limited such that the total usage divided by the accumulated months of operation shall not exceed 7.15 tons per month.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Diluent Usage This Month (tons)	Diluent Usage Previous 11 Months (tons)	12 Month Total Diluent Usage (tons)

- ☐ No deviation occurred in this quarter.
- ☐ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and
ST. JOSEPH COUNTY HEALTH DEPARTMENT**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY COMPLIANCE MONITORING REPORT**

Source Name: Walsh & Kelly, Inc.
Initial Source Address: 24358 State Road 23, South Bend, Indiana 46614
Mailing Address: 24358 State Road 23, South Bend, Indiana 46614
FESOP No.: F141-9888-03219

Months: _____ **to** _____ **Year:** _____

This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted quarterly. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/Deviation Occurrence Report. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD

☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD.

Compliance Monitoring Requirement (eg. Permit Condition D.1.3)	Number of Deviations	Date of each Deviation

Form Completed By: _____
Title/Position: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

**Indiana Department of Environmental Management
Office of Air Management
and St. Joseph County Health Department**

**Technical Support Document (TSD) for a
Federally Enforceable State Operating Permit (FESOP)**

Source Background and Description

Source Name:	Walsh & Kelly, Inc.
Initial Source Location:	24358 State Road 23, South Bend, Indiana 46614
Initial County:	St. Joseph
SIC Code:	2951
Operation Permit No.:	F141-9888-03219
Permit Reviewer:	Trish Earls/EVP

The Office of Air Management (OAM) has reviewed a Federally Enforceable State Operating Permit (FESOP) application from Walsh & Kelly, Inc. relating to the operation of a portable drum mix asphalt plant.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (1) one (1) hot asphalt drum mixer capable of processing 400 tons per hour of raw material, equipped with one (1) 115 million British thermal units (MMBtu) per hour natural gas fired burner using #5 residual fuel oil and #2 distillate fuel oil as backup fuels;
- (2) one (1) rotary air/reverse air baghouse for controlling particulate matter (PM) emissions from the hot asphalt drum mixer, exhausting at one (1) stack (ID No. S-1);
- (3) four (4) 20,000 gallon liquid asphalt storage tanks; and
- (4) production of stockpile mix.

Unpermitted Emission Units and Pollution Control Equipment Requiring ENSR

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment Requiring ENSR

There are no new facilities to be reviewed under the ENSR process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (1) Natural gas-fired combustion sources with heat input equal to or less than ten million Btu per hour including:
 - (a) one (1) natural gas fired hot oil heater, identified as C-2, with a maximum rated capacity of 2.256 million British thermal units per hour, using #2 distillate fuel as backup fuel; and

- (b) one (1) natural gas fired inert gas generator identified as C-3 rated at 0.0228 million British thermal units.
- (2) Combustion source flame safety purging on startup.
- (3) Replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment.
- (4) Paved and unpaved roads and parking lots with public access.
- (5) One (1) hot mix slat conveyor.
- (6) Four (4) aggregate conveyors.
- (7) One (1) 4' x 14' double deck aggregate screen.
- (8) Two (2) recycled asphalt conveyors.
- (9) One (1) 4' x 8' recycled asphalt screen.
- (10) Eight (8) aggregate feeder bins, each with a capacity of 32 tons.
- (11) One (1) recycled asphalt feeder bin, with a capacity of 32 tons.
- (12) Three (3) surge silos, each with a capacity of 300 tons.
- (13) One (1) dust silo, using one (1) jetpulse baghouse for controlling particulate matter emissions, exhausting at one (1) stack identified as S-2.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (1) CP 141-8177-03219, issued on June 26, 1997.

All conditions from previous approvals were incorporated into this FESOP except the following:

- (1) CP 141-8177-03219, issued on June 26, 1997.

Operation Condition No. 9

PSD Limit

- 9. That the input of natural gas and natural gas equivalent to the 115 million British thermal units per hour burner for the aggregate dryer shall be limited, to 844.9 million cubic feet per twelve (12) consecutive months. The limitation is based on:
 - (a) Total for each month shall not exceed the difference between the annual usage limit minus the sum of actual usage from the previous eleven (11) months.
 - (b) During the first 12 months of operation, the fuel usage shall be limited such that the total usage divided by the accumulated months of operation shall not exceed the limit specified.
 - (c) For the purposes of determining compliance, every gallon of No. 2 distillate fuel oil (based on a maximum sulfur content of 0.49%) burned shall be equivalent to 128.6 cubic feet of natural gas burned such that the total input of natural gas and natural gas equivalent does not exceed the limit specified.
 - (d) This production limitation is equivalent to source wide sulfur dioxide (SO₂) and nitrogen oxides (NO_x) emissions limits of 228.7 and 228.4 tons per year, respectively, rolled on a monthly basis. Therefore, the Prevention of Significant Deterioration (PSD) rules, 326 IAC 2-2 and 40 CFR 52.21 will not apply.

Reason not incorporated: Due to new AP-42 emission factors for natural gas combustion published in March, 1998, the potential NO_x emissions from natural gas combustion are less than 250 tons per year. Therefore, a fuel usage limitation for natural gas to avoid the requirements of 326 IAC 2-2 (PSD) is not necessary. There will be a fuel usage limitation for #5 residual oil and #2 distillate oil to limit SO₂ emissions below 100 tons per year.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the FESOP be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP application for the purposes of this review was received on June 26, 1998.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (11 pages).

Potential Emissions

Pursuant to 326 IAC 1-2-55, Potential Emissions are defined as "emissions of any one (1) pollutant which would be emitted from a facility, if that facility were operated without the use of pollution control equipment unless such control equipment is necessary for the facility to produce its normal product or is integral to the normal operation of the facility."

Pollutant	Potential Emissions (tons/year)
PM	33,485.3
PM-10	7,797.5
SO ₂	853.4
VOC	2,641.9
CO	43.1
NO _x	200.3

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential Emissions (tons/year)
Acetaldehyde	2.3
Acrolein	0.05
Antimony	0.02
Arsenic	0.01
Benzene	0.72
Beryllium	neg.
Cadmium	0.01
Chromium	0.03
Cobalt	0.02
Ethylbenzene	0.67

Formaldehyde	4.2
Lead	0.01
Manganese	0.01
Mercury	neg.
Methyl Ethyl Ketone	0.04
Nickel	0.31
Propionaldehyde	0.23
Quinone	0.28
Selenium	neg.
Toluene	1.31
Total POM	1.02
Xylene	0.28
TOTAL	11.48

- (a) The potential emissions (as defined in 326 IAC 1-2-55) of PM₁₀, SO₂, VOC, and NO_x are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) This source, otherwise required to obtain a Title V permit, has agreed to accept a permit with federally enforceable limits that restrict its PTE to below the Title V emission levels. Therefore, this source will be issued a Federally Enforceable State Operating Permit (FESOP), pursuant to 326 IAC 2-8.

Limited Potential to Emit

- (a) The source has accepted a federally enforceable limit on potential to emit PM₁₀ of less than 100 tons per year, consisting of:
 - (i) 41.64 tons per year for the significant activities; and
 - (ii) 57.36 tons per year for the insignificant activities.
- (b) The source has accepted a federally enforceable limit on potential to emit SO₂ of less than 100 tons per year, consisting of:
 - (i) 93.95 tons per year for the significant activities; and
 - (ii) 5.05 tons per year for the insignificant activities.
- (c) The source has accepted a federally enforceable limit on potential to emit NO_x of less than 100 tons per year, consisting of:
 - (i) 71.11 tons per year for the significant activities; and
 - (ii) 1.43 tons per year for the insignificant activities.

Note: Natural gas usage in the aggregate dryer burner is limited so that NO_x emissions from the aggregate dryer are limited to 71.11 tons per year to ensure that total source wide NO_x emissions will not exceed 100 tons per year when the back-up fuel oils are also used in the aggregate dryer burner.

- (d) The source has accepted a federally enforceable limit on potential to emit VOC of less than 100 tons per year, consisting of:
 - (i) 98.95 tons per year for the significant activities; and

- (ii) 0.05 tons per year for the insignificant activities.
- (e) The table below summarizes the total limited potential to emit of the significant and insignificant emission units.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Aggregate Drying	53.22	41.64	93.95	13.13	31.44	71.11	11.07
Conveying/ Handling*	8.92	4.22	0.0	0.0	0.0	0.0	0.0
Unpaved Roads*	150.66	52.73	0.0	0.0	0.0	0.0	0.0
Storage Piles*	0.93	0.33	0.0	0.0	0.0	0.0	0.0
Cold-Mix Storage	0.0	0.0	0.0	85.82	0.0	0.0	0.0
Insignificant Activities	0.14	0.08	5.05	0.05	0.83	1.43	0.0
Total Emissions	213.87	99.0	99.0	99.0	32.27	72.54	11.07

* These activities also qualify as insignificant activities (see Insignificant Activities).

County Attainment Status

The source is located in St. Joseph County.

Pollutant	Status
PM-10	Unclassifiable
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Not Designated

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. St. Joseph County has been designated as attainment or unclassifiable for ozone.

Portable Source

- (a) Initial Location
This is a portable source and its initial location is 24358 State Road 23, South Bend, Indiana 46614
- (b) PSD and Emission Offset Requirements
The emissions from this portable source were reviewed under the requirements of the Prevention of Significant Deterioration (PSD), 326 IAC 2-2, 40 CFR 52.21, and Emission Offset, 326 IAC 2-3.

- (c) Local Agency
Based on the initial location of this source, the St. Joseph County Health Department shall be contacted for additional air operating requirements. OAM has the authority to issue this FESOP.

Federal Rule Applicability

- (a) This source is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.90, Subpart I) because it meets the definition of a hot mix asphalt facility pursuant to the rule and it was constructed after June 11, 1973. This rule limits particulate matter emissions to 0.04 grains per dry standard cubic foot (gr/dscf) and also limits visible emissions to 20% opacity. This is equivalent to a particulate matter emission rate of 16.2 pounds per hour from the aggregate dryer and 0.21 pounds per hour from the dust silo (an insignificant activity). The source will comply with this rule by using baghouses to limit particulate matter emissions from the aggregate dryer and the dust silo (an insignificant activity) to less than 0.03 gr/dscf, each (see Appendix A, page 9 of 9, for detailed calculations).
- (b) The four (4) 20,000 gallon liquid asphalt storage tanks are subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110b, Subpart Kb) because each tank was constructed after July 23, 1984, and each has a storage capacity greater than 40 cubic meters. However, since each of the tanks has a storage capacity greater than 75 cubic meters but less than 151 cubic meters, and the liquid stored in each tank has a maximum true vapor pressure of less than 15.0 kPa, the tanks are subject to only 40 CFR Part 60.116b, paragraphs (a), (b), and (c) which require record keeping.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR Part 63, applicable to this source.

State Rule Applicability - Entire Source

326 IAC 1-6-3 (Preventive Maintenance Plan)

The source has submitted a Preventive Maintenance Plan (PMP) on June 26, 1998. This PMP has been verified to fulfill the requirements of 326 IAC 1-6-3 (Preventive Maintenance Plan).

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of VOC and NOx. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 2-8-4 (FESOP)

This source is subject to 326 IAC 2-8-4 (FESOP). Pursuant to this rule, the usage of No. 5 residual fuel oil, with a maximum sulfur content of 1.5%, and No. 5 residual fuel oil equivalents in the aggregate dryer burner shall be limited to 797,877 U.S. gallons per twelve (12) consecutive month period, rolled on a monthly basis, so that SO₂ emissions are limited below 100 tons per year. Also, the usage of natural gas and natural gas equivalents in the aggregate dryer burner shall be limited to 748.53 MMCF per twelve (12) consecutive month period, rolled on a monthly basis, so that NOx emissions are limited below 100 tons per year. PM-10 emissions from the aggregate dryer shall be limited to 9.51 pounds per hour.

The source will comply with the PM-10 emission limit by utilizing a baghouse for controlling PM-10 emissions from the aggregate dryer to 1.76 pounds per hour. Also, the VOC usage in the production of cold mix (stockpile mix) asphalt shall be limited to 85.82 tons per twelve (12) month period, rolled on a monthly basis. This is equivalent to 343.28 tons of diluent used per twelve (12) month period in the production of cold mix (stockpile mix) asphalt based on 25% volatilization. Therefore, the requirements of 326 IAC 2-7 do not apply.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period, as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9, or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor), in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions)

This source is subject to 326 IAC 6-4 for fugitive dust emissions. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), fugitive dust shall not be visible crossing the boundary or property line of a source. Observances of visible emissions crossing property lines may be refuted by factual data expressed in 326 IAC 6-4-2(1), (2) or (3).

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

This source is subject to 326 IAC 6-5 for fugitive particulate matter emissions. Pursuant to 326 IAC 6-5, for any new source which has not received all the necessary preconstruction approvals before December 13, 1985, a fugitive dust control plan must be submitted, reviewed and approved. The fugitive dust control plan for this source includes the following:

- (a) Aggregate storage piles will be water when dust can be observed blowing from the piles. Water will be applied at a rate of 275 gallons of water per acre of storage piles or greater if needed to suppress dust.
- (b) The plant roadways will be watered when dust can be observed coming up from the road upon vehicular passage. Water will be applied at a rate of 3 gallons of water per mile of roadway, or greater if needed to suppress dust.

State Rule Applicability - Individual Facilities

326 IAC 6-1-2 (Particulate Emissions Limitations)

The particulate matter emissions from the aggregate mixing and drying operation and the dust silo loading (an insignificant activity) are subject to the requirements of 326 IAC 6-1-2 (Particulate Emissions Limitations). The rule requires that the particulate matter emissions be limited to 0.03 gr/dscf. This is equivalent to a particulate matter emission rate of 12.15 pounds per hour from the aggregate dryer and 0.16 pounds per hour from the dust silo loading. The baghouse for the aggregate dryer shall be in operation at all times the aggregate dryer is in operation, in order to comply with this limit, and the baghouse for the dust silo shall be in operation at all times the dust silo is being loaded.

326 IAC 6-3-2 (Process Operations)

The aggregate mixing and drying operation is not subject to the requirements of 326 IAC 6-3-2. This rule does not apply if the limitation established in the rule is not consistent with applicable limitations in 326 IAC 6-1 or 326 IAC 12. Since the applicable PM limits established by 326 IAC 6-1-2 and 326 IAC 12, 40 CFR 60, Subpart I, are less than the PM limits that would be established by 326 IAC 6-3-2, the more stringent limits apply and the limits pursuant to 326 IAC 6-3-2 do not apply.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

The sulfur dioxide emissions from the 115.0 MMBtu/hr dryer burning distillate oil shall be limited to 0.5 lb/MMBtu heat input. This equates to a distillate fuel oil sulfur content limit of 0.5%. Therefore, the sulfur content of the distillate fuel must be less than or equal to 0.5% in order to comply with this rule (See Appendix A, Page 10 of 10 for detailed calculations). The source will comply with this rule by using No. 2 distillate fuel oil with a sulfur content of 0.5% or less in the dryer. The sulfur dioxide emissions from the 115.0 MMBtu/hr dryer burning residual oil shall be limited to 1.6 lb/MMBtu heat input. This equates to a residual fuel oil sulfur content limit of 1.5%. Therefore, the sulfur content of the residual fuel must be less than or equal to 1.5% in order to comply with this rule (See Appendix A, Page 10 of 10 for detailed calculations). The source will comply with this rule by using No. 5 residual fuel oil with a sulfur content of 1.5% or less in the dryer.

326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements)

This source is subject to 326 IAC 7-2-1 (Reporting Requirements). This rule requires the source to submit to the Office of Air Management upon request records of sulfur content, heat content, fuel consumption, and sulfur dioxide emission rates based on a calendar-month average.

326 IAC 8-5-2 (Miscellaneous Operations: Asphalt Paving)

No person shall cause or allow the use of cutback asphalt or asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion for any paving application except the following purposes:

- 1) penetrating prime coating
- 2) stockpile storage
- 3) application during the months of November, December, January, February and March.

This source uses liquid asphalt binder to manufacture stockpile mix for stockpile storage, therefore, there is no limit on the % of oil distillate in the liquid asphalt used. The source is in compliance with 326 IAC 8-5-2.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action.

However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

1. The combustion of natural gas, No. 5 residual fuel oil and No. 2 distillate fuel oil in the aggregate dryer burner has applicable compliance monitoring conditions as specified below:
 - (a) the consumption of natural gas and its equivalents in the aggregate dryer burner is limited to 748.53 million cubic feet (MMCF) per twelve (12) month period, rolled on a monthly basis, in order to ensure compliance with 326 IAC 2-8 (FESOP).
 - (b) the consumption of No. 5 residual fuel oil and its equivalents in the aggregate dryer burner is limited to 797,877 U.S. gallons per twelve (12) month period, rolled on a monthly basis, based on a maximum sulfur content of 1.5% for the No. 5 residual fuel oil, in order to ensure compliance with 326 IAC 2-8 (FESOP).
 - (c) the consumption of No. 2 distillate fuel oil and its equivalents in the aggregate dryer burner is limited to 2,646,479 U.S. gallons per twelve (12) month period, rolled on a monthly basis, based on a maximum sulfur content of 0.5% for No. 2 distillate fuel oil, in order to ensure compliance with 326 IAC 2-8 (FESOP).
 - (d) Quarterly reports shall be submitted to OAM Compliance Section. These reports shall include:
 - (1) the monthly usages of natural gas, No. 5 residual fuel oil, and No. 2 distillate fuel oil expressed as natural gas equivalents in MMCF for NO_x emissions;
 - (2) the monthly usages of natural gas, No. 5 residual fuel oil and No. 2 distillate fuel oil expressed as No. 5 residual fuel oil equivalents in gallons for SO₂ emissions; and
 - (3) sulfur content and heating value of the fuel oils.

These monitoring conditions are necessary because NO_x and SO₂ emissions from the combustion of natural gas, No. 5 residual fuel oil and No. 2 distillate fuel oil must be limited such that source-wide NO_x and SO₂ emissions are below the Title V major source level of 100 tons per year to comply with 326 IAC 2-8-4. Additionally, the sulfur content of the fuel oils must comply with 326 IAC 7-1.1.

2. The production of cold-mix (stockpile mix) asphalt has applicable compliance monitoring conditions as specified below:
 - (a) The VOC usage in the production of cold mix (stockpile mix) asphalt shall be limited to 85.82 tons per twelve (12) consecutive month period, rolled on a monthly basis in order to ensure compliance with 326 IAC 2-8 (FESOP). This is equivalent to 343.28 tons of diluent used per twelve (12) month period in the production of cold mix (stockpile mix) asphalt based on 25% volatilization.
 - (b) Quarterly reports shall be submitted to OAM Compliance Section. These reports shall include the amount of diluent (oil distillate) used per year, rolled on a monthly basis.

These monitoring conditions are necessary because VOC emissions from the production of cold-mix (stockpile mix) asphalt concrete must be limited such that source-wide VOC emissions are below the Title V major source level of 100 tons per year to comply with 326 IAC 2-8-4. Additionally, the source must demonstrate compliance with 326 IAC 8-5-2.

3. The conveying, material transfer points, screening, unpaved roads, storage piles, mixing and drying operation have applicable compliance monitoring conditions as specified below:
 - (a) Daily visible emissions notations of the conveying, material transfer points, screening, unpaved roads, storage piles, and mixer/dryer stack exhaust shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.
 - (b) The Permittee shall record the total static pressure drop across the baghouse controlling the mixing and drying operation, at least once daily when the aggregate dryer is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 0.5 to 8.0 inches of water or a range established during the latest stack test. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of the above mentioned range for any one reading.

These monitoring conditions are necessary because the baghouse for the mixing and drying operation must operate properly to ensure compliance with 40 CFR Part 60.90 (Subpart I-Standards of Performance for Hot Mix Asphalt Facilities), 326 IAC 6-1-2 (Particulate Emissions Limitations), and 326 IAC 2-8 (FESOP).

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 187 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) FESOP Application Form GSD-08.

- (a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.
- (b) See attached calculations for detailed air toxic calculations (Appendix A, page 8 of 10).

Conclusion

The operation of this portable drum mix asphalt plant shall be subject to the conditions of the attached proposed **FESOP No. F141-9888-03219**.

**Indiana Department of Environmental Management
Office of Air Management**

Addendum to the
Technical Support Document for Federally Enforceable State Operating
Permit (FESOP)

Source Name: Walsh & Kelly, Inc.
Initial Source Location: 24358 State Road 23, South Bend, Indiana 46614
SIC Code: 2951
Initial County: St. Joseph
Operation Permit No.: F141-9888-03219
Permit Reviewer: Trish Earls/EVP

On March 11, 1999, the Office of Air Management (OAM) had a notice published in the South Bend Tribune, South Bend, Indiana, stating that Walsh & Kelly, Inc. had applied for a Federally Enforceable State Operating Permit (FESOP) to operate a portable drum mix asphalt plant. The notice also stated that OAM proposed to issue a FESOP for this operation and provided information on how the public could review the proposed FESOP and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this FESOP should be issued as proposed.

Upon further review, the OAM has decided to make the following changes to the FESOP:

1. A typographical error was made in condition D.1.4 of the FESOP, where the subsections were labeled as (c) and (d) instead of (a) and (b). Condition D.1.4 is revised to read as follows (changes in bold or strikeout):

D.1.4 Sulfur Dioxide (SO₂) [326 IAC 7-1.1]

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), sulfur dioxide emissions from the 115.0 million Btu per hour burner for the aggregate dryer shall be limited to:

- (a)(c)** 1.6 pounds per MMBtu heat input or a sulfur content of less than or equal to 1.5% when using residual oil; and
- (b)(d)** 0.5 pounds per million Btu heat input or a sulfur content of less than or equal to 0.5% when using distillate oil.

On March 11, 1999, Ken DeRolf submitted comments on behalf of Walsh & Kelly, Inc. The summary of the comments and responses is as follows:

Comment #1

In item (12) of condition A.3 of the FESOP, please change three (3) surge silos to four (4) surge silos.

Response #1

Item (12) of condition A.3 of the FESOP and of the Insignificant Activities section of the TSD is revised to read as follows (changes in bold or strikeout):

(12) ~~Three (3)~~ **Four (4)** surge silos, each with a capacity of 300 tons.

Comment #2

In condition D.1.11, please remove the requirement for parametric monitoring on a daily basis for pressure drop readings. The fact that the source must perform daily visible emissions checks (per condition D.1.10) is sufficient to insure compliance.

Response #2

The mixing and drying operation is subject to 326 IAC 6-1-2 and 40 CFR 60.90, Subpart I, which limits PM emissions from the mixing and drying operation to 0.03 and 0.04 grains per dry standard cubic foot (gr/dscf), respectively. Subpart I also limits the opacity from the mixing and drying operation to no greater than twenty percent (20%). The daily visible emission notations are a way of monitoring compliance with the opacity limitations of Subpart I and 326 IAC 5-1, without the requirement to have a person on site trained in opacity measurement. This requirement is designed as a trigger that the source perform some corrective action on the facility if visible emissions are abnormal, to ensure continuous compliance. The baghouse controlling emissions from the drum mixer must be operated properly to ensure compliance with the PM emission limitations in 326 IAC 6-1-2 and 40 CFR 60.90, Subpart I. Parametric monitoring shows that the baghouse is operating properly, and that the operation is therefore in compliance with 326 IAC 6-1-2 and 40 CFR 60.90, Subpart I. Visible emission checks alone are not sufficient to demonstrate compliance with these PM emission limitations, therefore, condition D.1.11 will remain unchanged.

Company Name:	Walsh & Kelly, Inc.
Plant Location:	24358 State Road 23, South Bend, Indiana 46614
County:	St. Joseph
Date Received:	June 26, 1998
Permit Reviewer:	Trish Earls

**** aggregate dryer burner****

The following calculations determine the amount of emissions created by natural gas combustion, from the aggregate dryer burner, based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, and 1.4-3.

Criteria Pollutant:	115 MMBtu/hr * 8,760 hr/yr	* Ef (lb/MMcf) = (ton/yr)
	1000 Btu/cf * 2,000 lb/ton	
P M:	7.6 lb/MMcf =	3.83 ton/yr
P M-10:	7.6 lb/MMcf =	3.83 ton/yr
S O 2:	0.6 lb/MMcf =	0.30 ton/yr
N O x:	190.0 lb/MMcf =	95.70 ton/yr
V O C:	5.5 lb/MMcf =	2.77 ton/yr
C O:	84.0 lb/MMcf =	42.31 ton/yr

The following calculations determine the amount of emissions created by the combustion of #5 residual fuel oil @ 1.50 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-2, and 1.3-5.

Criteria Pollutant:	115 MMBtu/hr * 8,760 hr/yr	* Ef (lb/1,000 gal) = (ton/yr)
	139,000 Btu/gal * 2,000 lb/ton	
P M:	10.0 lb/1000 gal =	36.24 ton/yr
P M-10:	8.6 lb/1000 gal =	31.16 ton/yr
S O 2:	235.5 lb/1000 gal =	853.39 ton/yr
N O x:	55.0 lb/1000 gal =	199.31 ton/yr
V O C:	0.28 lb/1000 gal =	1.01 ton/yr
C O:	5.0 lb/1000 gal =	18.12 ton/yr

The following calculations determine the amount of emissions created by the combustion of #2 distillate fuel oil @ 0.50 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-2, and 1.3-5.

Criteria Pollutant:	115 MMBtu/hr * 8,760 hr/yr	* Ef (lb/1,000 gal) = (ton/yr)
	139,000 Btu/gal * 2,000 lb/ton	
P M:	2.0 lb/1000 gal =	7.25 ton/yr
P M-10:	1.0 lb/1000 gal =	3.62 ton/yr
S O 2:	71.0 lb/1000 gal =	257.29 ton/yr
N O x:	20.0 lb/1000 gal =	72.47 ton/yr
V O C:	0.20 lb/1000 gal =	0.72 ton/yr
C O:	5.0 lb/1000 gal =	18.12 ton/yr

The maximum potential emissions from the aggregate dryer burner due to fuel combustion are the following:

Criteria Pollutant:		Worst Case Fuel
P M:	36.24 ton/yr	No. 5 Residual Oil
P M-10:	31.16 ton/yr	No. 5 Residual Oil
S O 2:	853.39 ton/yr	No. 5 Residual Oil
N O x:	199.31 ton/yr	No. 5 Residual Oil
V O C:	2.77 ton/yr	Natural Gas
C O:	42.31 ton/yr	Natural Gas

****hot oil heater****

The following calculations determine the amount of emissions created by natural gas combustion, from the hot oil heater, based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, and 1.4-3.

Criteria Pollutant:	2.256 MMBtu/hr * 8,760 hr/yr	* Ef (lb/MMcf) = (ton/yr)
	1000 Btu/cf	* 2,000 lb/ton

P M:	7.6 lb/MMcf =	0.08 ton/yr
P M-10:	7.6 lb/MMcf =	0.08 ton/yr
S O 2:	0.6 lb/MMcf =	0.01 ton/yr
N O x:	100.0 lb/MMcf =	0.99 ton/yr
V O C:	5.5 lb/MMcf =	0.05 ton/yr
C O:	84.0 lb/MMcf =	0.83 ton/yr

The following calculations determine the amount of emissions created by the combustion of #2 distillate fuel oil @ **0.50** % sulfur, from hot oil heater, based on 8760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-2, and 1.3-6.

Criteria Pollutant:	2.256 MMBtu/hr * 8,760 hr/yr	* Ef (lb/1,000 gal) = (ton/yr)
	139,000 Btu/gal	* 2,000 lb/ton

P M:	2.0 lb/1000 gal =	0.14 ton/yr
P M-10:	1.1 lb/1000 gal =	0.08 ton/yr
S O 2:	71.0 lb/1000 gal =	5.05 ton/yr
N O x:	20.0 lb/1000 gal =	1.42 ton/yr
V O C:	0.34 lb/1000 gal =	0.02 ton/yr
C O:	5.0 lb/1000 gal =	0.36 ton/yr

The maximum potential emissions from the hot oil heater due to fuel combustion are the following:

Criteria Pollutant:	Worst Case Fuel
P M:	0.14 ton/yr Distillate Oil
P M-10:	0.08 ton/yr Natural Gas/Distillate Oil
S O 2:	5.05 ton/yr Distillate Oil
N O x:	1.42 ton/yr Distillate Oil
V O C:	0.05 ton/yr Natural Gas
C O:	0.83 ton/yr Natural Gas

****insignificant combustion sources****

Insignificant combustion units at this source include one (1) natural gas fired 0.0228 MMBtu/hr inert gas generator.

The following calculations determine the amount of emissions created by natural gas combustion, based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1, 1.4-2, and 1.4-3.

Criteria Pollutant:	0.0228 MMBtu/hr * 8,760 hr/yr	* Ef (lb/MMcf) = (ton/yr)
	1000 Btu/cf	* 2,000 lb/ton

P M:	7.6 lb/MMcf =	7.59E-04 ton/yr
P M-10:	7.6 lb/MMcf =	7.59E-04 ton/yr
S O 2:	0.6 lb/MMcf =	5.99E-05 ton/yr
N O x:	94.0 lb/MMcf =	9.39E-03 ton/yr
V O C:	5.5 lb/MMcf =	5.49E-04 ton/yr
C O:	40.0 lb/MMcf =	3.99E-03 ton/yr

**** aggregate drying: drum-mix plant ****

The following calculations determine the amount of worst case emissions created by aggregate drying before controls, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Tables 11.1-5 and 11.1-10 for a drum mix dryer which has the capability of combusting either fuel oil or natural gas:

$$\text{Pollutant: } \frac{\text{Ef (lb/ton)} \times 400 \text{ ton/hr} \times 8,760 \text{ hr/yr}}{2,000 \text{ lb/ton}}$$

Criteria Pollutant:

P M:	19	lb/ton =	33,288.00 ton/yr
P M-10:	4.4	lb/ton =	7,708.80 ton/yr
VOC:	0.006317	lb/ton =	11.07 ton/yr

The VOC emission factor for aggregate drying includes HAP emissions which are assumed to be VOC.

**** conveying / handling ****

The following calculations determine the amount of emissions created by material handling, based on 8,760 hours of use and AP-42, Section 13.2.4, Equation 1. The emission factor for calculating PM emissions is calculated as follows:

PM-10 Emissions:

$$E = k \cdot (0.0032) \cdot \left(\frac{U}{5} \right)^{1.3} \cdot \left(\frac{M}{2} \right)^{1.4}$$

$$= 2.41\text{E-}03 \text{ lb PM-10/ton}$$

$$5.09\text{E-}03 \text{ lb PM/ton}$$

where k = 0.35 (particle size multiplier for <10um)
0.74 (particle size multiplier for <30um)

U = 12 mph mean wind speed

M = 2.6 average material moisture content (%)

$$\frac{400 \text{ ton/hr} \times 8,760 \text{ hrs/yr} \times \text{Ef (lb/ton of material)}}{2,000 \text{ lb/ton}} = (\text{ton/yr})$$

Total PM 10 Emissions: 4.22 tons/yr
Total PM Emissions: 8.92 tons/yr

**** dust transfer to dust silo ****

The following calculation determines the amount of PM emissions created by dust transfer to dust silo, based on 8,760 hours of operation and AP-42, Table 11.12.2.

Dust Transfer to Dust Silo:

$$\text{Dust Loading: } 1 \text{ operation(s)} \times 2.9\text{E-}02 \text{ lb/ton/operation(s)} = 0.48 \text{ ton/yr}$$

**** unpaved roads ****

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8,760 hours of use and AP-42, Ch 11.2.1.

I. Tri-Axle Quad

$$\begin{aligned} & 20 \text{ trip/hr} \times \\ & 0.2 \text{ mile/trip} \times \\ & 2 \text{ (round trip) } \times \\ & 8,760 \text{ hr/yr} = \end{aligned}$$

70080 miles per year

$$\begin{aligned} E_f &= k \cdot 5.9 \cdot (s/12) \cdot (S/30) \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365) \\ &= 1.32 \text{ lb/mile} \\ \text{where } k &= 0.8 \text{ (particle size multiplier)} \\ s &= 2 \text{ \% silt content of unpaved roads} \\ p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\ S &= 10 \text{ miles/hr vehicle speed} \\ W &= 21 \text{ tons average vehicle weight} \\ w &= 16 \text{ wheels} \end{aligned}$$

$$\text{PM: } \frac{1.32 \text{ lb/mi} \times 70080 \text{ mi/yr}}{2000 \text{ lb/ton}} = 46.39 \text{ tons/yr}$$

$$\text{P M-10: } 35\% \text{ of PM} = 16.24 \text{ tons/yr}$$

II. Semi Tractor Trailer

$$\begin{aligned} & 20 \text{ trip/hr} \times \\ & 0.2 \text{ mile/trip} \times \\ & 2 \text{ (round trip) } \times \\ & 8,760 \text{ hr/yr} = \end{aligned}$$

70080 miles per year

$$\begin{aligned} E_f &= k \cdot 5.9 \cdot (s/12) \cdot (S/30) \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365) \\ &= 1.85 \text{ lb/mile} \\ \text{where } k &= 0.8 \text{ (particle size multiplier)} \\ s &= 2 \text{ \% silt content of unpaved roads} \\ p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\ S &= 10 \text{ miles/hr vehicle speed} \\ W &= 26 \text{ tons average vehicle weight} \\ w &= 22 \text{ wheels} \end{aligned}$$

$$\text{PM: } \frac{1.85 \text{ lb/mi} \times 70080 \text{ mi/yr}}{2000 \text{ lb/ton}} = 64.68 \text{ tons/yr}$$

$$\text{P M-10: } 35\% \text{ of PM} = 22.64 \text{ tons/yr}$$

III. Loader

$$\begin{aligned} & 20 \text{ trip/hr} \times \\ & 0.2 \text{ mile/trip} \times \\ & 2 \text{ (round trip) } \times \\ & 8,760 \text{ hr/yr} = \end{aligned}$$

70080 miles per year

$$\begin{aligned} E_f &= k \cdot 5.9 \cdot (s/12) \cdot (S/30) \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365) \\ &= 1.13 \text{ lb/mile} \\ \text{where } k &= 0.8 \text{ (particle size multiplier)} \\ s &= 2 \text{ \% silt content of unpaved roads} \\ p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\ S &= 10 \text{ miles/hr vehicle speed} \\ W &= 44 \text{ tons average vehicle weight} \\ w &= 4 \text{ wheels} \end{aligned}$$

$$\text{PM: } \frac{1.13 \text{ lb/mi} \times 70080 \text{ mi/yr}}{2000 \text{ lb/ton}} = 39.59 \text{ tons/yr}$$

$$\text{P M-10: } 35\% \text{ of PM} = 13.86 \text{ tons/yr}$$

Total PM Emissions From Unpaved Roads = 150.66 tons/yr

Total PM-10 Emissions From Unpaved Roads = 52.73 tons/yr

**** storage ****

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8,760 hours of use and USEPA's AP-42 (Pre 1983 Edition), Section 11.2.3.

Material	Silt Content (wt %)	Pile Size (acres)	Storage Capacity (tons)	PM Emissions tons/yr	PM-10 Emissions tons/yr
Sand	1.0	1.200	5,000	0.25	0.09
Limestone	0.5	0.800	14,000	0.08	0.03
Gravel	1.0	1.200	12,500	0.25	0.09
Slag	1.0	0.800	8,500	0.17	0.06
RAP	0.5	1.600	20,000	0.17	0.06
Total				0.93	0.33

Sample Calculation:

$$\begin{aligned}
 E_f &= 1.7 \cdot (s/1.5) \cdot (365-p)/235 \cdot (f/15) \\
 &= 1.39 \text{ lb/acre/day} \\
 \text{where } s &= 1.2 \% \text{ silt} \\
 p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\
 f &= 15 \% \text{ of wind greater than or equal to 12 mph}
 \end{aligned}$$

Note: PM-10 emissions are approximately 35% of PM emissions

****cold mix VOC storage emissions ****

The following calculations determine the amount of VOC emissions caused by stockpile mix (asphalt emulsion with 30% water will be 7% of stockpile mix; asphalt emulsion with 6% distillate oil content will be 5% of stockpile mix, after water vaporization). Based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 4.5, Table 4.5-1, 25% of the distillate oil (similar to diluent used in slow cure cutback asphalt) will be vaporized. Therefore:

$$\begin{aligned}
 \text{VOC Emission Factor} &= 5\% \text{ emulsion in stockpile} \cdot 6\% \text{ dis. oil} \cdot 25\% \text{ of oil emitted} = 0.075\% \text{ wt. \% flash-off of} \\
 \text{Potential Throughput (tons/yr)} &= 3,504,000 \text{ tons/yr stockpile mix} \quad \text{stockpile mix}
 \end{aligned}$$

$$\text{Potential VOC Emissions (tons/yr)} = \text{Potential Throughput (tons/yr)} \cdot \text{VOC Emission Factor (wt\% flash-off)}$$

$$\text{Potential VOC Emissions} = 2,628.00 \text{ tons/yr}$$

**** summary of source emissions before controls ****

Criteria Pollutants:

P M:	33,485.30 ton/yr	
P M-10:	7,797.54 ton/yr	
S O 2:	853.40 ton/yr	
N O x:	200.29 ton/yr	
V O C:	2,641.89 ton/yr	(VOCs include HAPs from aggregate drying operation)
C O:	43.14 ton/yr	

**** source emissions after controls ****

In order to qualify for the FESOP program, this facility must limit PM-10, SO₂, NO_x, and VOC emissions to 99.0 tons per year. Consequently, SO₂ emissions from the aggregate dryer must be limited to 93.95 tons per year (99.0 ton/yr - 5.05 ton/yr from the hot oil heater). The NO_x emissions from the aggregate dryer must be limited to 97.57 ton/yr (99.0 ton/yr - 1.43 ton/yr from the hot oil heater and inert gas generator).

* Emissions of PM and PM-10 from aggregate drying operations are controlled with a 99.900 % control efficiency.

The following calculations determine the amount of emissions created by natural gas combustion based on a fuel usage limitation of 748,526,316 cf

Natural Gas: $\frac{748.526 \text{ MMcf/yr}}{2,000 \text{ lb/ton}}$ * Ef (lb/MMcf) = (ton/yr)

P M:	7.6 lb/MMcf =	2.8E-03 ton/yr
P M-10:	7.6 lb/MMcf =	2.8E-03 ton/yr
S O 2:	0.6 lb/MMcf =	0.22 ton/yr
N O x:	190.0 lb/MMcf =	71.11 ton/yr
V O C:	5.5 lb/MMcf =	2.06 ton/yr
C O:	84.0 lb/MMcf =	31.44 ton/yr

The following calculations determine the amount of emissions created by No.5 residual fuel oil @ 1.50 % sulfur based on a fuel usage limitation of 797,877 gal/yr:

No. 2 Distillate Oil: $\frac{797.877 \text{ gal/yr}}{2,000 \text{ lb/ton}}$ * Ef (lb/1,000 gal) = (ton/yr)

P M:	10.0 lb/1000 gal =	3.99E-03 ton/yr *
P M-10:	8.6 lb/1000 gal =	3.43E-03 ton/yr *
S O 2:	235.5 lb/1000 gal =	93.95 ton/yr
N O x:	55.0 lb/1000 gal =	21.94 ton/yr
V O C:	0.28 lb/1000 gal =	0.11 ton/yr
C O:	5.0 lb/1000 gal =	1.99 ton/yr

The following calculations determine the amount of emissions created by No.2 distillate fuel oil @ 0.50 % sulfur based on a fuel usage limitation of 2,646,479 gal/yr:

No. 2 Distillate Oil: $\frac{2,646.479 \text{ gal/yr}}{2,000 \text{ lb/ton}}$ * Ef (lb/1,000 gal) = (ton/yr)

P M:	2.0 lb/1000 gal =	2.65E-03 ton/yr *
P M-10:	1.0 lb/1000 gal =	1.32E-03 ton/yr *
S O 2:	71.0 lb/1000 gal =	93.95 ton/yr
N O x:	20.0 lb/1000 gal =	26.46 ton/yr
V O C:	0.20 lb/1000 gal =	0.26 ton/yr
C O:	5.0 lb/1000 gal =	6.62 ton/yr

Criteria Pollutant:

		Worst Case Fuel
P M:	4.0E-03 ton/yr *	#5 Residual Fuel Oil
P M-10:	3.4E-03 ton/yr *	#5 Residual Fuel Oil
S O 2:	93.95 ton/yr	Distillate/Residual Fuel Oil
N O x:	71.11 ton/yr	Natural Gas
V O C:	2.06 ton/yr	Natural Gas
C O:	31.44 ton/yr	Natural Gas

Primary Fuel Usage Limitations

Natural Gas:

$$\frac{71.11 \text{ tons NOx/year limited}}{95.70 \text{ tons NOx/year potential}} * \frac{1007.40 \text{ MMCF}}{\text{year potential}} = 748.53 \frac{\text{MMCF}}{\text{year limited}}$$

Secondary Fuel Usage Limitations

Fuel Oil: #5 residual oil

$$\frac{93.95 \text{ tons SO}_2\text{/year limited}}{853.39 \text{ tons SO}_2\text{/year potential}} * \frac{7247.48 \text{ Kgals}}{\text{year potential}} = 797.88 \frac{\text{Kgals}}{\text{year limited}}$$

Fuel Oil: #2 distillate fuel oil

$$\frac{93.95 \text{ tons SO}_2\text{/year limited}}{257.29 \text{ tons SO}_2\text{/year potential}} * \frac{7247.48 \text{ Kgals}}{\text{year potential}} = 2646.48 \frac{\text{Kgals}}{\text{year limited}}$$

Primary fuel equivalence limit for #5 residual fuel oil based on NOx emissions from natural gas

$$\frac{199.31 \text{ #5 F.O. potential emissions (ton/yr)}}{7247.48 \text{ #5 F.O. potential usage (kgal/yr)}} / \frac{95.70 \text{ n.g. potential emissions (ton/yr)}}{1007.4 \text{ n.g. potential usage (MMCF/yr)}} = 0.2895 \frac{\text{MMCF n.g. burned}}{\text{Kgal #5 F.O. burned}}$$

Primary fuel equivalence limit for #2 distillate fuel oil based on NOx emissions from natural gas

$$\frac{72.47 \text{ #2 F.O. potential emissions (ton/yr)}}{7247.48 \text{ #2 F.O. potential usage (kgal/yr)}} / \frac{95.70 \text{ n.g. potential emissions (ton/yr)}}{1007.4 \text{ n.g. potential usage (MMCF/yr)}} = 0.1053 \frac{\text{MMCF n.g. burned}}{\text{Kgal #2 F.O. burned}}$$

Secondary fuel equivalence limit for natural gas based on SO2 emissions from #5 residual fuel oil

$$\frac{0.30 \text{ n.g. potential emissions (ton/yr)}}{1007.40 \text{ n.g. potential usage (MMCF/yr)}} / \frac{853.39 \text{ #5 F.O. potential emissions (ton/yr)}}{7247.48 \text{ #5 F.O. potential usage (kgal/yr)}} = 0.0025 \frac{\text{Kgal #5 F.O. burned}}{\text{MMCF n.g. burned}}$$

Secondary fuel equivalence limit for #2 distillate fuel oil based on SO2 emissions from #5 residual fuel oil

$$\frac{257.29 \text{ #2 F.O. potential emissions (ton/yr)}}{7247.48 \text{ #2 F.O. potential usage (kgal/yr)}} / \frac{853.39 \text{ #5 F.O. potential emissions (ton/yr)}}{7247.48 \text{ #5 F.O. potential usage (kgal/yr)}} = 0.3015 \frac{\text{Kgal #5 F.O. burned}}{\text{Kgal #2 F.O. burned}}$$

**** source emissions after controls ****

hot oil heater:		nonfugitive	
P M:	0.14 ton/yr x	100.00% emitted after controls =	0.14 ton/yr
P M-10:	0.08 ton/yr x	100.00% emitted after controls =	0.08 ton/yr
aggregate drying:		nonfugitive	
P M:	33,288.00 ton/yr x	0.10% emitted after controls =	33.29 ton/yr
P M-10:	7,708.80 ton/yr x	0.10% emitted after controls =	7.71 ton/yr
VOC:	11.07 ton/yr x	100.00% emitted after controls =	11.07 ton/yr
conveying/handling:		fugitive	
P M:	8.92 ton/yr x	50% emitted after controls =	4.46 ton/yr
P M-10:	4.22 ton/yr x	50% emitted after controls =	2.11 ton/yr
dust transfer to dust silo:		nonfugitive	
P M:	0.48 ton/yr x	0.1% emitted after controls =	0.00 ton/yr
P M-10:	0.23 ton/yr x	0.1% emitted after controls =	0.00 ton/yr
unpaved roads:		fugitive	
P M:	150.66 ton/yr x	50% emitted after controls =	75.33 ton/yr
P M-10:	52.73 ton/yr x	50% emitted after controls =	26.36 ton/yr
storage piles:		fugitive	
P M:	0.93 ton/yr x	50% emitted after controls =	0.46 ton/yr
P M-10:	0.33 ton/yr x	50% emitted after controls =	0.16 ton/yr
cold mix VOC storage:		fugitive	
VOC:	2,628.00 ton/yr x	343.28 Limited Diluent Throughput (tons/yr) =	85.82 ton/yr*

**** summary of source emissions after controls ****

Criteria Pollutant:	Non-Fugitive	Fugitive	Total
PM:	33.43 ton/yr	80.25 ton/yr	113.69 ton/yr
PM-10:	7.79 ton/yr	28.64 ton/yr	36.42 ton/yr
S O 2:	99.00 ton/yr	0.00 ton/yr	99.00 ton/yr
N O x:	72.54 ton/yr	0.00 ton/yr	72.54 ton/yr
V O C:	13.18 ton/yr	85.82 ton/yr	99.00 ton/yr
C O:	32.27 ton/yr	0.00 ton/yr	32.27 ton/yr

Hazardous Air Pollutants (HAPs)**** aggregate dryer burner****

The following calculations determine the amount of HAP emissions created by the combustion of distillate fuel oil before & after controls @ 0.50 % sulfur, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Table 1.3-11.

Hazardous Air Pollutants (HAPs):		115 MMBtu/hr * 8760 hr/yr	* Ef (lb/10 ¹² Btu) = (ton/yr)	
		2,000 lb/ton		
			Potential To Emit	Limited Emissions
Arsenic:	4.2	lb/10 ¹² Btu =	2.12E-03 ton/yr	2.12E-06 ton/yr
Beryllium:	2.5	lb/10 ¹² Btu =	1.26E-03 ton/yr	1.26E-06 ton/yr
Cadmium:	11	lb/10 ¹² Btu =	5.54E-03 ton/yr	5.54E-06 ton/yr
Chromium:	67	lb/10 ¹² Btu =	3.37E-02 ton/yr	3.37E-05 ton/yr
Lead:	8.9	lb/10 ¹² Btu =	4.48E-03 ton/yr	4.48E-06 ton/yr
Manganese:	14	lb/10 ¹² Btu =	7.05E-03 ton/yr	7.05E-06 ton/yr
Mercury:	3	lb/10 ¹² Btu =	1.51E-03 ton/yr	1.51E-06 ton/yr
Nickel:	18	lb/10 ¹² Btu =	9.07E-03 ton/yr	9.07E-06 ton/yr
		Total HAPs =	6.48E-02 ton/yr	6.48E-05 ton/yr

The following calculations determine the amount of HAP emissions created by the combustion of residual fuel oil before & after controls, from the aggregate dryer burner, based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Table 1.3-10.

Hazardous Air Pollutants (HAPs):		115 MMBtu/hr * 8760 hr/yr	* Ef (lb/1000 gal) = (ton/yr)	
		139,000 Btu/gal * 2000 lb/ton * 1000 gal/kgal		
			Potential To Emit	Limited Emissions
Lead:	1.5E-03	lb/1000 gal =	5.5E-03 ton/yr	5.47E-06 ton/yr
Antimony:	5.3E-03	lb/1000 gal =	1.9E-02 ton/yr	1.90E-05 ton/yr
Arsenic:	1.3E-03	lb/1000 gal =	4.8E-03 ton/yr	4.78E-06 ton/yr
Beryllium:	2.8E-05	lb/1000 gal =	1.0E-04 ton/yr	1.01E-07 ton/yr
Cadmium:	4.0E-04	lb/1000 gal =	1.4E-03 ton/yr	1.44E-06 ton/yr
Chromium:	8.5E-04	lb/1000 gal =	3.1E-03 ton/yr	3.06E-06 ton/yr
Cobalt:	6.0E-03	lb/1000 gal =	2.2E-02 ton/yr	2.18E-05 ton/yr
Manganese:	3.0E-03	lb/1000 gal =	1.1E-02 ton/yr	1.09E-05 ton/yr
Mercury:	1.1E-04	lb/1000 gal =	4.1E-04 ton/yr	4.09E-07 ton/yr
Nickel:	8.5E-02	lb/1000 gal =	3.1E-01 ton/yr	3.06E-04 ton/yr
Selenium:	6.8E-04	lb/1000 gal =	2.5E-03 ton/yr	2.48E-06 ton/yr
		Total HAPs =	0.37 ton/yr	3.73E-04 ton/yr

**** aggregate drying: drum-mix plant ****

The following calculations determine the amount of HAP emissions created by aggregate drying before & after controls, based on 8,760 hours of use and USEPA's AP-42, 5th Edition, Section 11.1 - Hot Mix Asphalt Plants, Table 11.1-10 for a drum mix dryer which can be fired with either fuel oil or natural gas. The HAP emission factors represent the worst case emissions (fuel oil combustion).

Pollutant:	Ef	lb/ton x	400	ton/hr x	8760 hr/yr	
			2000	lb/ton		
Hazardous Air Pollutants (HAPs):				Potential To Emit	Limited Emissions	
Acetaldehyde:	1.30E-03	lb/ton =	2.28	ton/yr	2.28	ton/yr
Acrolein:	2.60E-05	lb/ton =	0.05	ton/yr	0.05	ton/yr
Benzene:	4.10E-04	lb/ton =	0.72	ton/yr	0.72	ton/yr
Ethylbenzene:	3.80E-04	lb/ton =	0.67	ton/yr	0.67	ton/yr
*Formaldehyde:	2.40E-03	lb/ton =	4.20	ton/yr	4.20	ton/yr
Methyl Ethyl Ketone:	2.00E-05	lb/ton =	0.04	ton/yr	0.04	ton/yr
Propionaldehyde:	1.30E-04	lb/ton =	0.23	ton/yr	0.23	ton/yr
Quinone:	1.60E-04	lb/ton =	0.28	ton/yr	0.28	ton/yr
Toluene:	7.50E-04	lb/ton =	1.31	ton/yr	1.31	ton/yr
**Total Polycyclic Organic Matter (POM):	5.810E-04	lb/ton =	1.02	ton/yr	1.02	ton/yr
Xylene:	1.60E-04	lb/ton =	0.28	ton/yr	0.28	ton/yr
		Total HAPs =	11.07	ton/yr	11.07	ton/yr

* The emission factors for benzene, formaldehyde, and xylene from natural gas firing (0.0012 lb/ton, 0.0036 lb/ton, and 0.0004 lb/ton, respectively) exceed the benzene, formaldehyde, and xylene emission factors for fuel oil firing (0.00041 lb/ton, 0.0024 lb/ton, and 0.00016 lb/ton, respectively). Consequently, the worst case emissions for benzene, formaldehyde, and xylene are 1.58 ton/yr, 4.73 ton/yr, and 0.53 ton/yr, respectively.

However, since the VOC emissions from fuel oil combustion exceed the VOC emissions from natural gas firing, the fuel oil emission factors were used to avoid overestimating total VOC emissions.

** total POM includes 2-Methylnaphthalene, Acenaphthylene, Anthracene, Fluorene, Naphthalene, Phenanthrene, and Pyrene.

**** summary of source HAP emissions potential to emit ****

Hazardous Air Pollutants (HAPs):

Acetaldehyde:	2.278 ton/yr
Acrolein:	0.046 ton/yr
Antimony:	0.019 ton/yr
Arsenic:	0.005 ton/yr
Benzene:	0.718 ton/yr
Beryllium:	0.001 ton/yr
Cadmium:	0.006 ton/yr
Chromium:	0.034 ton/yr
Cobalt:	0.022 ton/yr
Ethylbenzene:	0.666 ton/yr
Formaldehyde:	4.205 ton/yr
Lead:	0.005 ton/yr
Manganese:	0.011 ton/yr
Mercury:	0.002 ton/yr
Methyl Ethyl Ketone:	0.035 ton/yr
Nickel:	0.306 ton/yr
Propionaldehyde:	0.228 ton/yr
Quinone:	0.280 ton/yr
Selenium:	0.002 ton/yr
Toluene:	1.314 ton/yr
Total POM:	1.018 ton/yr
Xylene:	0.280 ton/yr
Total:	11.48 ton/yr

**** summary of source HAP limited emissions ****

Hazardous Air Pollutants (HAPs):

Acetaldehyde:	2.278 ton/yr
Acrolein:	0.046 ton/yr
Antimony:	0.000 ton/yr
Arsenic:	0.000 ton/yr
Benzene:	0.718 ton/yr
Beryllium:	0.000 ton/yr
Cadmium:	0.000 ton/yr
Chromium:	0.000 ton/yr
Cobalt:	0.000 ton/yr
Ethylbenzene:	0.666 ton/yr
Formaldehyde:	4.205 ton/yr
Lead:	0.000 ton/yr
Manganese:	0.000 ton/yr
Mercury:	0.000 ton/yr
Methyl Ethyl Ketone:	0.035 ton/yr
Nickel:	0.000 ton/yr
Propionaldehyde:	0.228 ton/yr
Quinone:	0.280 ton/yr
Selenium:	0.000 ton/yr
Toluene:	1.314 ton/yr
Total Polycyclic Organic Matter:	1.018 ton/yr
Xylene:	0.280 ton/yr
Total:	11.07 ton/yr

**** miscellaneous ****

326 IAC 7 Compliance Calculations:

The following calculations determine the maximum sulfur content of distillate fuel oil allowable by 326 IAC 7:

$$\begin{array}{rcl} 0.5 \text{ lb/MMBtu} \times 140,000 \text{ Btu/gal} & = & 70 \text{ lb/1000gal} \\ 70 \text{ lb/1000gal} / 142 \text{ lb/1000 gal} & = & 0.5 \% \end{array}$$

Sulfur content must be less than or equal to 0.5% to comply with 326 IAC 7.

The following calculations determine the maximum sulfur content of residual oil allowable by 326 IAC 7:

$$\begin{array}{rcl} 1.6 \text{ lb/MMBtu} \times 140,000 \text{ Btu/gal} & = & 224 \text{ lb/1000gal} \\ 224 \text{ lb/1000gal} / 147 \text{ lb/1000 gal} & = & 1.5 \% \end{array}$$

Sulfur content must be less than or equal to 1.5% to comply with 326 IAC 7.

326 IAC 6-3-2 Compliance Calculations:

The following calculations determine compliance with 326 IAC 6-3-2 for process weight rates in excess of 30 tons per hour:

$$\begin{array}{rcl} \text{limit} = 55 * (400^{0.11}) - 40 & = & 66.31 \text{ lb/hr or} \\ & & 290.45 \text{ ton/yr} \end{array}$$

Since this emission limit exceeds the PSD source definition of 250 tons/yr, the Subpart I allowable emission limit of 70.96 tons/yr, and the 326 IAC 6-1-2 allowable emission limit of 53.22 tons/yr, compliance with the PM limit pursuant to 326 IAC 6-1-2 will satisfy the requirements of 326 IAC 6-3-2 and will exempt the source from the requirements of 326 IAC 2-2 (PSD).

PM-10 Emission Limit for Aggregate Dryer:

$$\begin{array}{rcl} (99.0 \text{ tons PM-10/yr} - 57.36 \text{ tons PM-10/yr from other sources}) & & \\ = 41.6 \text{ tons PM-10/yr} & = & 9.51 \text{ lbs/hr} \end{array}$$

PM-10 emissions from the aggregate dryer are controlled to 1.76 lbs/hr < 9.51 lbs/hr (Will comply)

Compliance with NSPS (326 IAC 12; 40 CFR 60.90 to 60.93, Subpart I) and 326 IAC 6-1-2

The following calculations determine compliance with 326 IAC 6-1-2 (for counties listed in 326 IAC 6-1-7) and NSPS, which limits stack emissions from asphalt plants to 0.03 gr/dscf (when in counties listed in 326 IAC 6-1-7), and 0.04 gr/dscf (when not located in those counties):

Aggregate Dryer Baghouse

$$\begin{array}{rcl} 33.29 \text{ ton/yr} * 2000 \text{ lb/ton} * 7000 \text{ gr/lb} & = & 0.019 \text{ gr/dscf (will comply)} \\ 525,600 \text{ min/yr} * 47,253 \text{ dscf/min} & & \end{array}$$

Allowable particulate emissions under 326 IAC 6-1-2 equate to	53.22 tons per year, or	12.15 lbs/hr.
Allowable particulate emissions under NSPS equate to	70.96 tons per year, or	16.20 lbs/hr.

Note:

$$\begin{array}{rcl} \text{SCFM} = 68,000 \text{ acfm} * (460 + 68) * (1 - 0.0261) / (460 + 280) & & \\ = 47,253 \text{ dscfm} & & \end{array}$$

Assumes exhaust gas temperature of 280F, exhaust gas moisture content of 2.61% and exhaust gas flow of 68,000 acfm.

Dust Silo Baghouse

$$\begin{array}{rcl} 4.8\text{E-}04 \text{ ton/yr} * 2000 \text{ lb/ton} * 7000 \text{ gr/lb} & = & 2.1\text{E-}05 \text{ gr/dscf (will comply)} \\ 525,600 \text{ min/yr} * 621 \text{ dscf/min} & & \end{array}$$

Allowable particulate emissions under 326 IAC 6-1-2 equate to	0.70 tons per year, or	0.16 lbs/hr.
Allowable particulate emissions under NSPS equate to	0.93 tons per year, or	0.21 lbs/hr.

Note:

$$\begin{array}{rcl} \text{SCFM} = 875 \text{ acfm} * (460 + 68) * (1 - 0.0261) / (460 + 265) & & \\ = 621 \text{ dscfm} & & \end{array}$$

Assumes exhaust gas temperature of 265F, exhaust gas moisture content of 2.61% and exhaust gas flow of 875 acfm.